**BIOS [Basic Input Output System]**

**BIOS**isshort forBasic Input Output System**.** BIOS is a firmware, in short. It is stored on a chip on the part of the computer motherboard and is basically, a set of instructions that run to help load the operating system. When you turn on the computer, BIOS instructions are initiated. These instructions make it check the RAM and the Processor (for faults) on your computer.

1. It enumerates the RAM by checking each compartment to see if all of them are working.
2. After checking out RAM and Processor, it checks for other devices attached to the computer
3. It detects all the peripherals, including the keyboard and mouse and then checks for the boot options
4. Boot options are checked in the sequence configured in your BIOS: Boot from CD-ROM, Boot from Hard Drive, Boot from LAN, etc.
5. It checks for bootstraps on the devices in the order you or the machine vendor configured the BIOS.
6. It passes reigns of the computer to the operating system by loading the essential parts of the OS into the random access memory (RAM) reserved for the OS, after bootstrap is located.

This is not a comprehensive list of functions of the BIOS. It also checks up [CMOS](http://forum.thewindowsclub.com/windows-tips-tutorials-articles/36666-what-cmos.html), and other chips to set up the date and time on the computer, and to load the device drivers into the memory. It checks and uploads input and output interrupts (signals) to the RAM so that the operating system knows what is happening. For example, if a user presses a key, an interrupt request is created and passed on to the BIOS which sends it to the operating system. The operating system then decides what action to take, according to the way it is programmed.

# **Purpose of BIOS for a Computer**

BIOS enables computers to perform certain operations as soon as they are turned on. The principal job of a computer's BIOS is to govern the early stages of the start-up process, ensuring that the operating system is correctly loaded into memory. BIOS is vital to the operation of most modern computers, and knowing some facts about it could help you troubleshoot issues with your machine.

BIOS is an important part of the computer framework. It primary purpose is to initialize and test the system hardware components, as well as to load a boot loader or an operating system from memory. BIOS is usually pre-loaded on to the motherboard. It is typically loaded onto an erasable programmable read-only memory (EPROM) chip. When the computer it turned on, the BIOS is the first thing to boot up. Firstly, it determines whether all of the attachments are in place and are operational. It then loads the operating system from the hard disk to the random access memory (RAM), after which the RAM takes over.